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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner:

Group Art Unit:

Applicant:

Danishefsky et al.

Serial No.:

09/833,327

Filed:

April 12, 2001

For:

COLON CANCER KH-1 AND N3 ANTIGENS

Assistant Commissioner for Patents Washington, DC 20231

Sir:

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AMENDMENT TO FORMAL DRAWING

Applicant respectfully requests entry of amended Formal Drawings 11A, 11B, 12B, 13A and 13B in the above-referenced application. As required, a marked-up copy of the drawings to show changes made is enclosed herewith.

REMARKS

Applicant respectfully requests entrance of the amended drawings as detailed above, and respectfully submits that no new matter is presented with these amendments.

The formal drawings have been amended to correct typographical errors or clerical errors. In particular, formal drawings 11A and 11B have been amended to add missing subscripts on several chemical formulas (e.g., AgBF₄, Bu₃SnO-, and -NHSO₂Ph), as correctly depicted on original Figure 11.

Figure 12B has been amended to correct the structure of the KLH-KH-1 linkage. Support for this amendment can be found in original Figure 12.

Finally, Figures 13A and 13B have been amended to correct the structure of the KH-1-M₂ crosslinkage, specifically to include the possibility that the linkage C-N bond be a single bond. Support for this amendment can be found in the paragraph starting on page 88 line 29 and ending on page 89 line 12, which reads:

"Preparation of KH-1-M₂C₂H

Two mg of KH-1-aldehyde was dissolved in 1 ml of 0.1M sodium acetate buffer pH 5.5, and 4 mg of M_2C_2H in 100 μ l of dimethyl sulfoxide (DMSO) was added. The reaction mixture was incubated at room temperature for 15 min with gentle stirring. At the end of 15 min 2 mg of solid **sodium cyanoborohydride** was added and the incubation continued at room temperature for 2 h. Unreacted M_2C_2H was removed in a Sephadex G10 column equilibrated previously with 0.1 M sodium phosphate buffer pH 6.0 containing 5 mM EDTA and eluted with the same buffer. The fractions positive for KH-1 by TLC with orcinol were combined."

The use of sodium cyanoborohydride clearly indicates that the conjugation reaction proceeds through a **reductive** amination reaction. Therefore, one embodiment of the invention provides a final conjugation product whereby the linkage group is a fully reduced moiety, as depicted on amended formal drawings 13A and 13B.

Applicant has provided replacement formal drawings 11A, 11B, 12B, 13A and 13B reflecting the amendments made, as described in more detail above. Applicant respectfully requests that these drawings be substituted for the drawings presently on file.

Although it is believed that there is no fee associated with this amendment, if Applicants are mistaken, please charge any fees to our Deposit Account No.: 03-1721.

Respectfully Submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner, For Patents. Washington. D.C. 20231

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